

In the claims:

The following list of claims replaces all preceding lists of claims.

1. (current amended) A process for the conversion of sewage sludges, the process characterized by the steps of:
  - (a) feeding dried sludge through a reactor;
  - (b) heating the dried sludge in the reactor in the absence of oxygen for the volatilization of oil producing organic materials therein, resulting in gaseous products and sludge residue;
  - (c) transferring the gaseous products from the reactor to a catalytic converter;
  - (d) contacting the gaseous products from the reactor or the reheated oil and/or non-condensable products, if any, with a catalyst in the catalytic converter in the absence of oxygen, and in the absence of sludge residue;
  - (e) removing the gaseous products from the catalytic converter; and
  - (f) condensing and oil/water separating the gaseous products of the catalytic converter.
2. (original) A process according to claim 1, wherein sludge residue from the reactor is transferred to a storage bin through a valve system for ensuring both no air ingress into and no gaseous product egress from the reactor.
3. (original) A process according to claim 1 or 2, wherein the feeding of the dried sludge through the reactor utilizes a feed system that ensures both no air ingress into, and no escape of gaseous products from, the reactor.
- 4 (previously presented) A process according to claim 2, wherein the temperature of the reactor is at least 250°C.
5. (original) A process according to claim 4, wherein the temperature of the reactor is about 450°C.
6. (previously presented) A process according to claim 1, the process further characterized by the method steps of:
  - (g) transferring the gaseous products from the reactor to a condensation system to condense the oil product from the gaseous products; and
  - (h) reheating water free oil and/or non-condensable products, if any, from the condensation system in an oil reheater.

7. (previously presented) A process according to claim 1, wherein the condensation system of step (f) comprises direct condenser.

8. (original) A process according to claim 6, wherein the condensation of step (g) comprises indirect condensation at  $> 100^{\circ}\text{C}$ .

9. (previously presented) A process according to claim 1, wherein the direct transfer of gaseous products of step (b) from the reactor to the catalytic converter takes place in heat traced lines.

10. (previously presented) A process according to claim 1, wherein the temperature of the catalytic converter is up to  $650^{\circ}\text{C}$ , thereby promoting reductive, catalytic gas/solid phase reactions and substantially eliminating hetero-atoms, including nitrogen, oxygen, sulphur, and halogens.

11. (original) A process according to claim 10, wherein the catalytic converter temperature is in the range of  $400$  to  $550^{\circ}\text{C}$ .

12. (previously presented) A process according to claim 10, wherein the catalytic converter temperature is in the range of  $400$  to  $420^{\circ}\text{C}$

13. (currently amended) A process according to claim 1, wherein the catalytic converter contains a catalyst, the catalyst being selected from the group consisting of chosen ~~from any of~~ zeolite, activated alumina,  $\gamma$ -aluminium oxide, silicon oxide and oxides of alkali, earth alkali and transition metals.

14. (original) A process according to claim 13, wherein the catalyst is zeolite.

15. (previously presented) A process according to claim 6, wherein the process further comprises the step of testing the miscibility of the oil product with a hydrocarbon solvent and modifying the conditions of the catalytic converter in response thereto.

16. (previously presented) A process according to claim 6, wherein the oil product of the process is miscible with a hydrocarbon solvent.

17. (original) A process according to claim 16, wherein the solvent is diesel fuel.

18. (currently amended) A process for the conversion of sewage sludges, the process characterized by the steps of:

- (a) feeding dried sludge through a first reactor;
- (b) heating the dried sludge in the first reactor in the absence of oxygen for the volatilization of oil producing organic materials therein, resulting in gaseous products and sludge

residue;

- (c) transferring gaseous products from the first reactor to a first condensation system;
- (d) transferring sludge residue to a second reactor where it is heated with oil and/or non-condensable products from the first condensation system;
- (e) transferring the gaseous products of the second reactor to a catalytic converter;
- (f) contacting the gaseous products of step (e) with a catalyst in the catalytic converter in the absence of oxygen and in the absence of sludge residue;
- (g) removing the gaseous products from the catalytic converter; and
- (h) condensing and oil/water separating the gaseous products of the catalytic converter.

19. (previously presented) A process according to claim 18, wherein the temperature of both reactors is about 450°C.

20. (original) A process according to claim 18, wherein the catalytic converter has a temperature of about 400 to 420°C.

21. (currently amended) An apparatus for the conversion of carbonaceous materials, the apparatus characterized by a feed system for dried material to be conveyed, a reactor, and a catalytic converter, the reactor having a solid product discharge outlet and a transfer line provided for transport of gaseous product in the absence of sludge residue directly or indirectly to the catalytic converter.

22. (original) An Apparatus according to claim 21, wherein a first condensation system is provided in-line between the reactor and catalytic converter.

23. (original) Apparatus according to claim 22, wherein the first condensation system includes an oil/water separation system.

24. (previously presented) Apparatus according to claim 21, wherein the catalytic converter is adapted to contact heated catalyst contained therein with oil or oil and non-condensable products of the condensation system, wherein gaseous products may be removed from the catalytic converter.

25. (previously presented) Apparatus according to claim 21, wherein a reheater is provided between the first condensation system and the catalytic converter.

26. (previously presented) Apparatus according to claim 19, wherein a second condensation system is provided to receive gaseous product from the catalytic converter.

27. and 28. (cancelled)